



EMERGING PANDEMIC THREATS

BACKGROUND

Nearly 75 percent of all new, emerging, or re-emerging diseases affecting humans at the beginning of the 21st century have originated in animals. Notable reminders of how vulnerable the increasingly interconnected world is to the global impact of new emergent diseases include HIV/AIDS, severe acute respiratory syndrome (SARS), H5N1 avian influenza, and the 2009 pandemic H1N1 influenza virus. The speed with which these diseases can emerge and spread presents serious public health, economic, and development concerns. It also underscores the need for the development of comprehensive disease detection and response capacities, particularly in “hot spot” areas such as the Congo Basin of East and Central Africa and areas of Southeast Asia and Latin America where a confluence of risk factors may contribute to disease emergence. Recognizing this need, the U.S. Agency for International Development (USAID) has launched an Emerging Pandemic Threats (EPT) program that seeks to aggressively pre-empt or combat diseases that could spark future pandemics.

STRATEGIC APPROACH

Composed of four complementary projects – PREDICT, PREVENT, IDENTIFY, and RESPOND – with technical assistance from the U.S. Centers for Disease Control and Prevention (CDC), the EPT global program draws on expertise from across the animal and human health sectors to build regional, national, and local One Health capacities for early disease detection; laboratory-based disease diagnosis; rapid response and containment; and risk reduction. The One Health approach refers to the inter-relationship among environmental, animal, and human health and the integration of these sectors to promote disease prevention and control. The EPT program coordinates closely with other U.S. Government agencies, international organizations, and donors.

At the country level, the EPT partners are working with governments and other key in-country and regional partners to enhance the understanding of viral distribution and key drivers of disease emergence, from deforestation and land use change to wildlife trade and livestock production demands. This information, along with other EPT investments to strengthen country-level capacities for routine infectious disease detection and outbreak response, will be used to improve surveillance, response, and risk-mitigation strategies in regions where new pandemic threats are likely to emerge. Focus countries in the Congo Basin include Cameroon, Democratic Republic of Congo, Gabon, Republic of the Congo, Rwanda, Tanzania, and Uganda, with limited program activity in Ethiopia and Kenya.

IMPACT IN THE CONGO BASIN

In the last three years USAID has supported the following:

- Establishment and growth of the One Health Central and Eastern Africa (OHCEA), a network of 14 university schools of public health and veterinary medicine in six countries. The OHCEA network is developing integrated curriculum and educational approaches to build the One Health focus of the next generation of public health and animal health professionals and to provide in-service training in collaboration with Ministries of Health and Agriculture.
- Convened the One Health in Africa Meeting in Libreville, Gabon in collaboration with WHO AFRO. The meeting resulted in ten Sub-Saharan African countries developing One Health Road

Maps to guide each country's efforts to improve the integration of public health, animal health, and environmental health.

- Development and testing of a Framework for detection, identification, and response during the initial phase of a public health event (e.g. newly emerging infectious disease outbreak, chemical spill, environmental hazard, etc.) in collaboration with WHO AFRO. The Framework will support countries in the Congo Basin to achieve the core capacity requirements of the International Health Regulations.
- Increased capacity for identification, analysis, and characterization of pathogens in wildlife, livestock, and people through support to national university, Ministry of Health, and Ministry of Agriculture laboratories. USAID support for laboratory capacity includes training, laboratory construction, and provision of equipment and supplies.

Globally the EPT program has supported the following:

- Discovery of 200 viruses in genera or families that are known to cause epidemics
- Initiation of two regional One Health university networks, including opportunities for inter-regional collaboration and twinning partnerships with U.S. Universities.
- Initiation of the Deep Forest Project for critical assessment of drivers of infectious disease emergence.
- Development and deployment of risk-mitigation strategies and tools for wildlife trade and consumption and extractive industry.